NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Violation Risk Factor and Violation Severity Level Justifications

Project 2021-01 Modifications to MOD-025 and PRC-019

This document provides the standard drafting team's (SDT's) justification for assignment of violation risk factors (VRFs) and violation severity levels (VSLs) for each requirement in PRC-019-3. Each requirement is assigned a VRF and a VSL. These elements support the determination of an initial value range for the Base Penalty Amount regarding violations of requirements in FERC-approved Reliability Standards, as defined in the Electric Reliability Organizations (ERO) Sanction Guidelines. The SDT applied the following NERC criteria and FERC Guidelines when developing the VRFs and VSLs for the requirements.

NERC Criteria for Violation Risk Factors

High Risk Requirement

A requirement that, if violated, could directly cause or contribute to Bulk Electric System instability, separation, or a cascading sequence of failures, or could place the Bulk Electric System at an unacceptable risk of instability, separation, or cascading failures; or, a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly cause or contribute to Bulk Electric System instability, separation, or a cascading sequence of failures, or could place the Bulk Electric System at an unacceptable risk of instability, separation, or cascading failures, or could hinder restoration to a normal condition.

Medium Risk Requirement

A requirement that, if violated, could directly affect the electrical state or the capability of the Bulk Electric System, or the ability to effectively monitor and control the Bulk Electric System. However, violation of a medium risk requirement is unlikely to lead to Bulk Electric System instability, separation, or cascading failures; or, a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly and adversely affect the electrical state or capability of the Bulk Electric System, or the ability to effectively monitor, control, or restore the Bulk Electric System. However, violation of a medium risk requirement is unlikely, under emergency, abnormal, or restoration conditions anticipated by the preparations, to lead to Bulk Electric System instability, separation, or cascading failures, nor to hinder restoration to a normal condition.

Lower Risk Requirement
A requirement that is administrative in nature and a requirement that, if violated, would not be expected to adversely affect the electrical state or capability of the Bulk Electric System, or the ability to effectively monitor and control the Bulk Electric System; or, a requirement that is administrative in nature and a requirement in a planning time frame that, if violated, would not, under the emergency, abnormal, or restorative conditions anticipated by the preparations, be expected to adversely affect the electrical state or capability of the Bulk Electric System, or the ability to effectively monitor, control, or restore the Bulk Electric System.

FERC Guidelines for Violation Risk Factors

Guideline (1) – Consistency with the Conclusions of the Final Blackout Report
FERC seeks to ensure that VRFs assigned to Requirements of Reliability Standards in these identified areas appropriately reflect their historical critical impact on the reliability of the Bulk-Power System. In the VSL Order, FERC listed critical areas (from the Final Blackout Report) where violations could severely affect the reliability of the Bulk-Power System:

- Emergency operations
- Vegetation management
- Operator personnel training
- Protection systems and their coordination
- Operating tools and backup facilities
- Reactive power and voltage control
- System modeling and data exchange
- Communication protocol and facilities
- Requirements to determine equipment ratings
- Synchronized data recorders
- Clearer criteria for operationally critical facilities
- Appropriate use of transmission loading relief.

Guideline (2) – Consistency within a Reliability Standard
FERC expects a rational connection between the sub-Requirement VRF assignments and the main Requirement VRF assignment.

Guideline (3) – Consistency among Reliability Standards
FERC expects the assignment of VRFs corresponding to Requirements that address similar reliability goals in different Reliability Standards would be treated comparably.

Guideline (4) – Consistency with NERC's Definition of the Violation Risk Factor Level
Guideline (4) was developed to evaluate whether the assignment of a particular VRF level conforms to NERC's definition of that risk level.

Guideline (5) – Treatment of Requirements that Co-mingle More Than One Obligation
Where a single Requirement co-mingles a higher risk reliability objective and a lesser risk reliability objective, the VRF assignment for such Requirements must not be watered down to reflect the lower risk level associated with the less important objective of the Reliability Standard.

NERC Criteria for Violation Severity Levels

VSLs define the degree to which compliance with a requirement was not achieved. Each requirement must have at least one VSL. While it is preferable to have four VSLs for each requirement, some requirements do not have multiple "degrees" of noncompliant performance and may have only one, two, or three VSLs.

VSLs should be based on NERC's overarching criteria shown in the table below:

Lower VSL	Moderate VSL	High VSL	Severe VSL
The performance or product measured almost meets the full intent of the requirement.	The performance or product measured meets the majority of the intent of the requirement.	The performance or product measured does not meet the majority of the intent of the requirement, but does meet some of the intent.	The performance or product measured does not substantively meet the intent of the requirement.

FERC Order of Violation Severity Levels

The FERC VSL guidelines are presented below, followed by an analysis of whether the VSLs proposed for each requirement in the standard meet the FERC Guidelines for assessing VSLs:

Guideline (1) – Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance

Compare the VSLs to any prior levels of non-compliance and avoid significant changes that may encourage a lower level of compliance than was required when levels of non-compliance were used.

Guideline (2) – Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties

A violation of a "binary" type requirement must be a "Severe" VSL.

Do not use ambiguous terms such as "minor" and "significant" to describe noncompliant performance.

Guideline (3) – Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement

VSLs should not expand on what is required in the requirement.

Guideline (4) – Violation Severity Level Assignment Should Be Based on a Single Violation, Not on a Cumulative Number of Violations

Unless otherwise stated in the requirement, each instance of non-compliance with a requirement is a separate violation. Section 4 of the Sanction Guidelines states that assessing penalties on a per violation per day basis is the "default" for penalty calculations.

VRF Justifications for PRC-019-3, Requirement R1	
Proposed VRF	**Medium**
NERC VRF Discussion	A Medium VRF is appropriate, since the failure to perform coordination could directly affect the electrical state or the capability of the bulk electric system. However, violation of this requirement is unlikely to lead to bulk electric system instability, separation, or cascading failures. Although the requirement has been significantly revised, the underlying performance (to perform coordination) is similar required by the currently effective requirement, which is assigned a Medium VRF.
FERC VRF G1 Discussion Guideline 1- Consistency with Blackout Report	The assignment of a Medium VRF is consistent with the Blackout Report.
FERC VRF G2 Discussion Guideline 2- Consistency within a Reliability Standard	This requirement has only a main VRF and no different sub-requirement VRFs.
FERC VRF G3 Discussion Guideline 3- Consistency among Reliability Standards	The assignment of a Medium VRF for Requirement R1 is consistent with the VRF for the currently effective Reliability Standard PRC-019-2 Requirement R1.
FERC VRF G4 Discussion Guideline 4- Consistency with NERC Definitions of VRFs	The assigned VRF is consistent with NERC definitions of VRFs.
FERC VRF G5 Discussion Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation	This requirement does not mingle a higher risk reliability objective and a lesser risk reliability objective. Therefore, the VRF reflects the risk of the whole requirement.

VRF Justifications for PRC-019-3, Requirement R2	
Proposed VRF	**Medium**
NERC VRF Discussion	A Medium VRF is appropriate, since the failure to perform coordination could directly affect the electrical state or the capability of the bulk electric system. However, violation of this requirement is unlikely to lead to bulk electric system instability, separation, or cascading failures. Although the requirement has been significantly revised, the underlying performance (to perform coordination) is similar required by the currently effective requirement, which is assigned a medium VRF.
FERC VRF G1 Discussion Guideline 1- Consistency with Blackout Report	The assignment of a medium VRF is consistent with the Blackout Report.
FERC VRF G2 Discussion Guideline 2- Consistency within a Reliability Standard	This requirement has only a main VRF and no different sub-requirement VRFs
FERC VRF G3 Discussion Guideline 3- Consistency among Reliability Standards	The assignment of a Medium VRF for Requirement R2 is consistent with the VRF for the currently effective Reliability Standard PRC-019-2 Requirement R2.
FERC VRF G4 Discussion Guideline 4- Consistency with NERC Definitions of VRFs	The assigned VRF is consistent with NERC definitions of VRFs.
FERC VRF G5 Discussion Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation	This requirement does not mingle a higher risk reliability objective and a lesser risk reliability objective. Therefore, the VRF reflects the risk of the whole requirement.

VSL for PRC-019-3, Requirement R1				
R#	**Lower VSL**	**Moderate VSL**	**High VSL**	**Severe VSL**
R1.	The Generator Owner or Transmission Owner coordinated equipment capabilities, control functions, and protection specified in Requirement R1 between 6 years (72 months) and 76 months after the previous coordination.	The Generator Owner or Transmission Owner coordinated equipment capabilities, control functions, and protection specified in Requirement R1 between 77 and 81 months after the previous coordination.	The Generator Owner or Transmission Owner coordinated equipment capabilities, control functions, and protection specified in Requirement R1 between 82 and 86 months after the previous coordination.	The Generator Owner or Transmission Owner coordinated equipment capabilities, control functions, and protection specified in Requirement R1 more than 86 months after the previous coordination. OR The Generator Owner or Transmission Owner failed to coordinate equipment capabilities, limiters, and protection as specified in Requirement R1.

VSL Justifications for PRC-019-3, Requirement R1	
FERC VSL G1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance	Requirement R1 is similar to PRC-019-2 Requirement R1 except the date ranges are changed to reflect the revised requirement. It does not lower the current level of compliance.
FERC VSL G2 Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties Guideline 2a: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not	Requirement R1 is not a "binary" type requirement. VSLs are clear, quantitative, and non-ambiguous.

VSL Justifications for PRC-019-3, Requirement R1	
Consistent Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language	
FERC VSL G3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement	The language in the VSLs directly correlates to the language in Requirement R1.
FERC VSL G4 Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations	Each VSL is based on a single violation and not cumulative violations.

VSL for PRC-019-3, Requirement R2				
R#	**Lower VSL**	**Moderate VSL**	**High VSL**	**Severe VSL**
R2.	The Generator Owner or Transmission Owner updated associated coordination documentation as specified in Requirement R2 between 91 and 120 calendar days after return to in-service date.	The Generator Owner or Transmission Owner updated associated coordination documentation as specified in Requirement R2 between 121 and 150 calendar days after return to in-service date.	The Generator Owner or Transmission Owner updated associated coordination documentation as specified in Requirement R2 between 151 and 180 calendar days after return to in-service date.	The Generator Owner or Transmission Owner failed to update associated coordination documentation as specified in Requirement R2 within 151 calendar days after return to in-service date. OR The Generator Owner or Transmission Owner failed to coordinate equipment capabilities, limiters, and protection specified in Requirement R1 prior to the implementing a change in equipment or settings that affected the coordination.

VSL Justifications for PRC-019-3, Requirement R2	
FERC VSL G1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance	The VSLs for requirement R2 are similar to the VSLs for PRC-019-2 Requirement R2. The assignments do not have the unintended consequence of lowering the current level of compliance.
FERC VSL G2 Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties	VSLs are clear, quantitative, and non-ambiguous.

VSL Justifications for PRC-019-3, Requirement R2	
Guideline 2a: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language	
FERC VSL G3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement	The language in the VSLs directly correlates to the language in Requirement R2.
FERC VSL G4 Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations	Each VSL is based on a single violation and not cumulative violations.